

112-2-3592

Experience in Electrically Protecting Main Pipe Lines (Cont.)

The electrodes are set up in an activator in order to decrease resistance to current spread. Electrodes from magnesium-base, (MЛ-4 and MЛ-5) alloys, aluminum or zinc base alloys, or of pure zinc constitute the protective shield. The electrodes are placed 3 to 6 m from the pipe line in an activator (25 per cent magnesium sulfate, 25 per cent calcium sulfate and 50 per cent clay) and are connected to the pipe line. The advantage in using them is that they do not require a source of electric energy. Direct or polarized drainage, cathode protection installations, insulating flanges or electrodes are used to protect pipe lines in stray-current zones. The polarized drainage is designed to conduct a current of 100 to 200 amperes from the pipe line to the rail only. This is done by using polarized relays and mercury interrupters. Due to the possible generation of reverse currents, the use of solid rectifiers or the low-power ПЭД-39 and ПДА-42 drainage units used on underground cables is not recommended. VNII Stroyneft'

Card 3/4

112-2-3592

Experience in Electrically Protecting Main Pipe Lines (Cont.)

pipe line most subject to corrosion are likewise determined by measuring the transverse potential gradient. The all purpose YKMP-55 instrument is used in making all electrical measurements on the right of way and on the pipe line. The principal means of protection against soil corrosion are cathode protection installations and other protective installations. When there are local electric networks, rectifiers are used to feed the cathode-protection installations. When there are no local networks, wind-motor or Diesel-generator units are used. These units can be operated periodically to charge storage batteries. Graphite coated and carbon electrodes are used as grounding electrodes at cathode-protection installations.

Card 2/4

KOTIK, V.G.

112-2-3592

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,
Nr 2, p.157 (USSR)

AUTHOR: Glazkov, V.I., Kotik, V.G., Doroshenko, P.V.

TITLE: Experience in Electrically Protecting Main Pipe Lines
from Soil Corrosion (Opyt primeneniya elektrozashchity
magistral'nykh truboprovodov ot podzemnoy korrozii)

PERIODICAL: Tr.Vses. n.-1. in-ta po str-vu, 1956, Nr 8, pp.97-123.

ABSTRACT: The most effective system is insulation coating combined
with electrical protection. The corrosiveness of the
ground is determined by measuring the resistivity of
the ground through 50 to 100 m. Those sections of the

Card 1/4

KOTIK, V. G.

"Electro-Protection of Piping and Reservoirs from Corrosion, page 151,
of the book Petroleum Bases and Pipe Lines, Gostoptekhnizdat, 1956.

USSR:

1959. EXPERIMENTAL METHODS OF PREVENTING PIPE LINES FROM CORROSION.
Kobak, V. (Nov. Dept. Sci. (New Patrol, Tech. U.S.S.R.)), 1959, (5),
2441; abstr. in Int. Eng. Index, Moscow, 15 Apr. 1960, (16), 386. The
possibility is mentioned of using for cathodic protection anodes of a
magnesium alloy with a special coating of 1% calcium sulphate, 35% magnesium
sulphate and 50% zinc.

KOTIK, Vaclav

Present state and future of automation in power engineering.
Energetika Cz 11 no.7:313-314 JI '61.

OVCHARENKO, Ye.Ya.; KOTIK, U.I.; FAYNBERG, L.I.

The PR-150 noncontact radioactive densimeter. Sbor.mat.po avtom.
proizv.prots.i disp. no.5:5-18 '60. (MIRA 14:4)

1. Konstruktorskoye byuro "TSvetmetavtomatika".

(Radioactive substances--Industrial applications)
(Electronic instruments)

KOTIK, Tadeusz

Protein level in feed as affecting the composition of protein fractions in the blood serum of pigs. *Besz probl post nauk roln* no.54:103-108 '64.

1. Institute of Animal Physiology and Feeding, Department of Meat Science in Bydgoszcz of the Polish Academy of Sciences.

DAJALASZYNSKI, Lech; KOTIK, Tadeusz

Level of protein and protein fractions in the blood serum of pregnant rabbits. Acta physiol. Pol. 16 no.1:105-109 Ja-F'65.

1. Zaklad Fizjologii Zwierzat Wysszej Szkoły Rolniczej w Poznaniu (Kierownik: prof. dr. L. Dajalaszynski).

DZIALOSZYSKI, Lech; KOTIK, Tadeusz

Feeding and the total content of proteins and certain protein fractions in the blood serum of heifers. Roczniki Wyz Szkola Rol Poznan no.12:109-113 '62.

1. Katedra Fizjologii Zwiersat, Wyzsza Szkola Rolnicza, Poznan.

DZIALOSZYNSKI, Lech; KOTIK, Tadeusz

Blood serum proteins of rabbits in relation to sex. Roczniki
Wyz Szkola Rol Poznan no.12:105-108 '62.

DZIALOSZYNSKI, L.; KOTIK, T.

Level of proteins and protein fraction in the blood serum of calves
in relation to age. Acta physiol. polon. 10 no.3:374-383 May-June 59.

1. Z Zakladu Fizjologii Zwierzat W. S. R. w Poznaniu Kierownik:
prof. dr L. Dzialoszynski.
(BLOOD PROTEINS) (AGING, eff.)

KOTIK, S.M.

KULIKOV, G.P.; KOTIK, S.M.

Introduction of high-speed slot milling. Proizv.-tekhn. inform.
no.5:108-112 '52. (MLRA 10:3)
(Milling machines)

KULIKOV, G. P., KOTIK, S. M.

Machine-Shop Practices

Experience in the use of high-speed groove cutting., Stan. i instr., no. 15, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March, 1952 ~~1953~~, Uncl.

KOTIK, S.A. (Ivano-Frankovsk)

Sanitary characteristics of the river and infiltration water
supply in Ciscarpathia. Vrach. delo no.2:127-129 F'64
(MIRA 17:4)

1. Ivano-Frankovskaya golovnaya sanitarno-epidemiologicheskaya
stantsiya; nauchnyy rukovoditel' - prof. V.Z. Martynyuk.

KOTIK, S.A.

(Stanislav)

Public universities of health, the highest form of sanitary
educational work. Sovet. zdavookhr. 12 no.1s:49-51 '63
(MIRA 17:2)

1. Nachal'nik Stanislavskoy golovnoy sanitarno-epidemiologiches-
koy stantsii L'vovskoy zheleznoy dorogi.

LAPATUKHIN, V.S.; KOTIK, R.A.; SOLOKHINA, V.G.

Manufacture of masks with fine structure using a chemical and electrochemical two-side metal etching technique. Sbor. mat. po elektrovak. tekhn. no.28:40-50 '61. (MIRA 16:8)

KOTIK, R. I.

KOTIK, R. I.: "Methods of improving rubber offset, 1st ed." Min
Cultura USSR. Moscow Polygraphics Inst. Moscow, 1956.
(Dissertation for the Degree of Candidate in Technical Sciences).

SO: Knishnaya letopis', No 23, 1956

KOTIK, R., dr.

Flame cutting of concrete. Stavivo 42 no.5:188-189 My '64.

LYUDVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; MISHCHENKO, V.S.;
FROLOVA, A.I.; KOTIK, P.L.; KHIL'KO, M.M.; MOLCHANOVA, M.I.;
VINOGRADOV, N.M.; PYLAYEV, S.V.; BEYGUL, Ye.I.; ROKHLIN, N.A.;
MASYUKOV, N.T.; BONDAR', V.I.

In the country's steelmaking plants. Metallurg 9 no.9:
16-19 S '64. (MIRA 17:10)

1. Saldinskiy metallurgicheskiy zavod (for Pylayev).
2. Zavod im. Dzerzhinskogo (for Beygul, Rokhlin).
3. Yenakiyevskiy metallurgicheskiy zavod (for Masyukov, Bondar').

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; BELICHENKO, G.I.; KOTIK, P.L.;
SIDORENKO, Yu.P.; ZIL'BERG, Ye.S.; DRYAPIK, Ye.P.; VAYNTRAUB, S.S.;
ZHIDKOV, V.A.; SHCHEDRINSKIY, L.I.; MOREV, G.P.

Prefabricated blocks of unfired magnesite-chromite brick.
Metallurg 9 no.4:23-24 Ap '64. (MIRA 17:9)

1. Ukrainskiy institut ogneuporov, Nikitovskiy dolomitovyy
kombinat i Kommunarskiy metallurgicheskiy zavod.

YEMEL'YANOV, D.S., doktor tekhn.nauk; KOTIK, P.L., inzh.; UTEUSH, E.V., inzh.;
UTEUSH, Z.V., inzh.

Automatic grinding in ball mills. Mekh. i avtom.proizv. 17 no.10:10
0 '63. (MIRA 17:1)

UTEUSH, Z.V.; KOTIK, P.L.; YEMEL'YANOV, D.S.; UTEUSH, E.V.

Automatic control of the ball mill grinding process. Ogneupory
28 no.12:547-553 '63. (MIRA 16:12)

1. Khar'kovskiy zavod kontrol'no-izmeritel'nykh priborov (for Z.V.Uteush).
2. Nikitovskiy dolomitnyy kombinat (for Kotik).
3. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki (for Yemel'yanov, E.V. Uteush).

MINKOVICH, B.D.; ANTONOV, G.I.; KOSOGOLOV, V.V.; KOTIK, P.L.

Manufacture of dense magnesite-chromite refractories. Ogne-
upory 28 no.7:305-311 '63. (MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov
(for Minkovich, Antonov, Kosogolov). 2. Nikitovskiy dolomit-
nyy kombinat (for Kotik).

KHIL'KO, M.M.; MOLCHANOVA, M.I.; KOTIK, P.L.; LYUDVINSKIY, A.I.;
KOREN, L.N.; KHARCHENKO, I.G.

Crown firebrick of a finely ground mixture of magnesite and
chromite. Ogneupory 28 no.6:256-258 '63. (MIRA 16:6)

1. Makeyevskiy metallurgicheskiy zavod im. Korova (for Khil'ko,
Molchanova).
2. Nikitovskiy dolomitovyy kombinat (for Kotik).
3. Dnepropetrovskiy metallurgicheskiy institut (for Lyudvinskiy,
Koren, Kharchenko).

(Firebrick)

KOTIK, P.L.; GOLUB', A.I.; GRATSEKHTSYN, P.M.; LOBKOVSKIY, D.P.

Automatically controlled skip loaders. Ogneupory 25 no.10:448-452
'60. (MIRA 13:10)

1. Nikitovskiy dolomitnyy kombinat (for Kotik). 2. Ukrenergochermet
(for Golub', Gratsershteyn, Lobkovskiy).
(Dolomite) (Loading and unloading)
(Automatic control)

15(2)

AUTHOS:

Kotik, P. L., Uzberg, A. I.,
D'yachkov, P. N.

S/131/60/000/01/014/017
B015/B001

TITLE:

Inter-works Course for the Production and Use of Refractory
Magnesite-chromite Crown Bricks

PERIODICAL:

Ogneupory, 1960, Nr 1, pp 44 - 46 (USSR)

ABSTRACT:

In this paper, the authors describe the course which was arranged by the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov RSFSR (State Committee of Science and Technology of the Cabinet Council of the RSFSR). 25 engineers and technicians of metallurgical factories and of factories of refractories took part in this course. The work was carried out at factories of refractories and at eight metallurgical factories. The following lectures were delivered: Professor Semikin and Professor Frenkel - On the wear of refractory bricks in the crowns of Martin furnaces, and on the ways of increasing the crown stability; Docent Lyudvinskiy - On the briquetting and use of refractory spinel products; Docent Tovarov - On the working conditions of milling aggregates in factories of refractories. On behalf of the participants of

Card 1/2

Origin and Use of the Weld With Respect to the
Production of Protective Coatings on the Lining of
Rotation Furnaces in Dolomite Burning

SOV/131-59-4-3/16

of regulation of dolomite weld are applied. The cyclic weld is avoided by heating of the furnace lining and the rings formed are thus destroyed. In order to prevent the furnace lining from being worn out an artificial weld is applied. Finally the author of this article expresses the desire that all coworkers of plants and institutes contribute to the discussion of this problem in order to devise rational burning methods for rotation furnaces and a protection of the furnace lining from wear and tear.

ASSOCIATION: Nikitovskiy dolomitnyy kombinat (Nikitovka Dolomite Kombinat)

Card 2/2

15(2)

AUTHOR:

Kotik, P. L.

SOV/131-59-4-3/16

TITLE:

Origin and Use of the Weld With Respect to the Production of Protective Coatings on the Lining of Rotation Furnaces in Dolomite Burning (Obrazovaniye i ispol'zovaniye navarki dlya sozdaniya zashchitnykh pokrytiy na futerovke vrashchayushchikhsya pechey pri obzhige dolomita)

PERIODICAL:

Ogneupory, 1959, Nr 4, pp 153-156 (USSR)

ABSTRACT:

In the Nikitovka dolomite Kombinat wearisome investigations of the regulation of the weld in the dolomite burning in rotation furnaces were performed. Coworkers of the Kombinat of the All-Union and Ukrainian Institute of Refractories and of the Ukrenergochermet took part in these investigating. In this way the regularities of the weld origin were determined. The occurrence of the weld is determined by the properties of the material to be burnt. A weld arises at a sufficient quantity of liquid phase for the wetting of the dolomite granules and furnace lining and can be cyclic and in form of several deposits. If the lining of the furnace is completely warmed so that it cannot cool, no weld of the material takes place. In the Nikitovka dolomite Kombinat the following methods

Card 1/2

DOLKART, F.Z.; KOTIK, P.L.; ZAYONTS, Ye.L.; ONISHCHENKO, P.V.

Preparation and testing in use of metallurgical dolomite from
Shchelkovo deposit raw materials. Ogneupory 23 no.7:292-298
'58. (MIRA 11:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov
(for Dolkart). 2. Nikitovskiy dolomitnyy kombinat (for Kotik,
Zayonts, Onishchenko).
(Shchelkovo--Refractory materials)
(Dolomite)

The Burning of Dolomites Which are Difficult to Sinter
in Rotation Furnaces by the Dry Method

131-3-1/16

shows the addition of SiO_2 and R_2O_3 in burnt Dolomite. The process of decomposition of the raw Dolomite in the burning furnace is to be seen from an illustration. Experiments carried out by burning Yelenovskoye Dolomite are intended to be continued, and the attempt shall be made to separate the fine particles 0.5 mm, in order in this way to be able to increase the burning temperature. Also Dolomites that are difficult to sinter found at other deposits in the Kombinat Nikitovka are to be investigated in order to solve the problem of the establishment of new plants in distant metallurgical works, and thus, if possible, to avoid the expensive transport of Dolomites. There are 2 figures and 2 tables.

ASSOCIATION: Dolomite Kombinat, Nikitovka (Nikitovskiy dolomitnyy kombinat)

AVAILABLE: Library of Congress

Card 2/2 1. Dolomite-Sintering 2. Dolomite-USSR

AUTHOR: Kotik, P.L.

131-3-1/16

TITLE: The Burning of Dolomites Which are Difficult to Sinter in Rotation Furnaces by the Dry Method (Obzhig trudnospekayushchikhsya dolomitov vo vrashchayushchikhsya pechakh rabotayushchikh po sukhomu sposobu)

PERIODICAL: Ogneupory, 1958, Vol 23, Nr 3, pp 97-101 (USSR)

ABSTRACT: In the region of the Kombinats Nikitovka and Yamskoye are the Dolomite deposits of Novo-Troitskoye, Yelenovskoye and Styl'skoye, which can be exploited above ground, in contrast to the deposit of Bol'shaya Gol'ma, which must be exploited by underground working, so that prices, in this case, are higher. The Dolomites of the occurrences of Novo-Troitskoye, Yelenovskoye and Styl'skoye contain less silicon oxide and one and a half-fold oxides than those of the deposit Bol'shaya Gol'ma, for which reason they are looked upon as difficult to sinter. Furthermore, the author gives a detailed description of a whole series of burning experiments by the dry method with Yelenovskoye-Dolomite, in which case the size of the grain of the Dolomite as well as the burning temperature was changed. Also S. Ye. Berinskaya participated in this work. A table

Card 1/2

SOV/131-58-7-2/14
The Production and the Test of the Metallurgical Dolomite of the Raw
Material of the ~~Sakhalinsky~~ Deposit During Operation

Nikitovskiy dolomitnyy kombinat
(Nikitovskiy Dolomite Kombinat)

1. Dolomite---Metallurgy 2. Dolomite---Properties 3. Minerals---Chemical analysis

Card 4/4

SOV/ 131-58-7-2/14

The Production and the Test of the Metallurgical Dolomite of the Raw
Material of the Shchelkovskoye Deposit During Operation

are mentioned (Table 7) and the experimental dolomite fired in the rotating kilns is shown (Fig 4). The same dolomite fired in cupola kilns is shown as well (Fig 5).

Conclusions: 1) The dolomite of the Shchelkovskoye deposit can be fired in the dry process in rotating kilns without additions; thus a metallurgical dolomite is produced which meets technical demands. 2) It is recommended to fire the dolomite separately according to fractions. 3) Tests in the "Serp i molot" works carried out with it proved its usefulness. 4) The construction of a firing plant at the Shchelkovskoye deposit must be accelerated in order to replace the magnesite powder used until now. This way also the demands of the Cherepovets metallurgical works could be met. 5) The production costs at the Shchelkovskoye deposit were estimated to be much lower than is the case at the Nikitovkiy and Yamskiy dolomite Kombinats. There are 5 figures and 7 tables.

ASSOCIATION: Vesoyuznyy nauchno-issledovatel'skiy institut ogneporov
Card 3/4 (All-Union Scientific Research Institute of Refractories)

SOV/131-58-7-2/14

The Production and the Test of the Metallurgical Dolomite of the Raw
Material of the Shchelkovskoye Deposit During Operation

dolomite used can be seen in table 1. Three samples of raw dolomite are shown (Fig 2); these samples were used by P. G. Pyatikop for petrographic investigations and were then described in detail. The granulation of the raw dolomite can be seen in table 2. The dolomite was fired in a rotating kiln according to the dry process. The chemical composition and granulation of the fired test dolomite are given (Figs 3 and 4). The comparison of the data of tables 3 and 1 is shown in table 5. Fig 3 shows the broken pieces that had been welded together of fine dolomite. The experimental dolomite produced this way, according to ChMTU 10018-54 for fired metallurgical dolomite, is to be classified as class 1 and sort 1. Its investigation was carried out at the "Serp i molot" works with P. Ya. Barzdayn, A. A. Lebed'kov, P. I. Mel'nikov, O. I. Yatsunakaya, G. V. Sviridov, A. A. Yegorov and A. I. Alekseyev (Ref 3) taking part in this investigation. The experimental dolomites were tested in Martin furnaces with a capacity of 70 tons. The chemical composition of the dolomite fired in the cupola kilns is shown (Table 6). The chemical composition and granulation of the metallurgical experimental dolomite

Card 2/4

AUTHORS: Dolkart, F. Z., Kotik, P. L., Zayonts, Ye. L.,
Onishchenko, P. V. SOV/131-58-7-2/14

TITLE: The Production and the Test of the Metallurgical Dolomite of
the Raw Material of the Shchelkovskoye Deposit During Operation
(Izgotovleniye i ispytaniye v sluzhbe metallurgicheskogo
dolomita iz syr'ya shchelkovskogo mestorozhdeniya)

PERIODICAL: Ogneupory, 1958, Nr 7, pp. 292 - 298 (USSR)

ABSTRACT: The Moscow Metallurgical Works "Serp i molot", "Elektrostal", New
Tula Plant and others use dolomite of the Shchelkovskoye deposit
after it had been fired in cupola kilns. The Council of
National Economy of the Moskovskaya Oblast approved the project
for the construction of a department for the firing of dolo-
mite at the Shchelkovskoye deposit with an annual output of
90,000 tons. In connection with this problem, a test charge
of metallurgical dolomite, according to the technological
scheme as shown in Fig 1, was produced by the Nikitovskiy dolomite
plant. The following specialists took part in this
work: P. D. Orekhov, Ye. S. Zil'barg, S. Ye. Berinskaya and
M. F. Tulyakova (Ref 1). The chemical composition of the raw

Card 1/4

KOTIK, N.V. [Koty, N.V.], assistant

State of the capillary system in pregnancy toxemias in relation to the methods of treatment. Pediat. akush. ginek. no.3:54-56 '63 (MIRA 17:1)

1. Kafedra akusherstva i ginekologii (zav. - prof. L.B.Teodor) Chernovitskogo meditsinskogo instituta (rektor - dotsent A.D. Yukhimets [Iukhymets', A.D.]).

KOTIK, N.V. [Kotyk, N.V.], assistant

Comparative evaluation of various methods for the diagnosis of
amniorrhoea. Ped. akush. i gin. 22 no. 1:52-55 '60.

(MIRA 13:8)

1. Kafedra akusherstva i ginekologii (zav. - prof. L.B. Teodor)
Chernovetskogo meditsinskogo instituta (direktor - dots.
M.M. Kovalev [M.M. Koval'ov].
(AMNIOTIC FLUID)

L 16840-66

ACC NR: AM6000300

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SUB CODE: 01/ SUBM DATE: 06Aug65/ ORIG REF: 023/

Card 3/3mc

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ACC Nbr AM6000300

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L 16840-66 ARG/EWT(d)/FBO/FBO/EWT(m)/ENP(v)/T-2/ENP(k)/ENP(h)/ENP(1)/EWA(h)/
 ACC NR: AM6000300 Monograph UR/ 52
 ETC(m)-6 TT/WW/EM 57
 R-1

Kotik, Mikhail Grigor'yevich; Pavlov, Aleksey Vasil'yevich; Pashkovskiy, Igor'
 Mikhaylovich; Sardanovskiy, Yuriy Sergeevich; Shchitavev, Nikolay Grigor'yevich

Flight testing of aircraft (Letnyye ispytaniya samoletov) Moscow, Izd-vo "Mashino-
 stroeniye," 1965. 379 p. illus., biblio. Errata slip inserted. 3000 copies
 printed.

TOPIC TAGS: aircraft flight test, aircraft

PURPOSE AND COVERAGE: This monograph is a textbook for students of aviation schools
 specializing in aircraft flight testing. It can also be used as a handbook by
 professional people employed by the aircraft industry at flight testing facilities.
 It presents up-to-date techniques used in aircraft testing, including a study of 2/
 the principles underlying the methods of determining the main characteristics of a
 modern airplane.

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Card 1/3

UDC: 629.135.2.001.4(075.3)

KOTIK, Mikhail Grigor'yevich, kand. tekhn. nauk; PAVLOV, Aleksey
Vasil'yevich, inzh.; PASHKOVSKIY, Igor' Mikhaylovich,
kand. tekhn. nauk; SARDANOVSKIY, Yuriy Sergeyevich, inzh.;
SHCHITAYEV, Nikolay Grigor'yevich, inzh.; GALLAY, M.L.,
kand. tekhn. nauk, zasl. letchik-ispytatel' SSSR, retsenzent;
KIRILLOV, Ye.A., inzh., retsenzent

[Flight testing of airplanes] Letnye ispytaniya samoletov.
Moskva, Mashinostroyeniye, 1965. 379 p. (MIRA 18:11)

L 5215-66

ACC. NR: AP5020632

SOURCE CODE: UR/0147/65/000/003/0022/00.

AUTHOR: Kotik, M. G.

ORG: None

TITLE: Determination of certain characteristics of aircraft spin

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 3, 1965, 22-31

TOPIC TAGS: aircraft performance, flight mechanics, flight disorientation, trajectory determination, angle of attack

ABSTRACT: The author investigates approximate methods of determining the speed of descent of an aircraft and loss of altitude, angles of inclination of an aircraft, and the radius of the spin spiral in the stabilized vertical spin of an aircraft. Angles of attack and glide of the aircraft are studied in the transition (initial, unstabilized spin) as well as in vertical (stabilized) spin are also considered. Aircraft descent at altitudes above, at, and below 11 km are calculated, including descent in vertical spin with the engine off. Characteristics of the trajectory with the engine on are studied. The angles of attack and glide are determined from the angular velocity of the rotation of the aircraft in stabilized vertical spin. Automatic flight and g-force recordings are used to determine the angles of attitude of the aircraft in spin. Orig. art. has: 2 figures and 44 formulas.

SUB CODE: AC / SUBM DATE: 01Dec64/

Card 1/1

UDC: 533.601.37



ADDITIONAL INFORMATION: 403-697-5000

[illegible]

and introduced parameter β_1 is also presented for individual β_1 and β_0 . β_0 is the intercept and β_1 is the slope. In order to compare the two models, the following parameters are used: the drop coefficient, β_1 , of the drop coefficient, β_1 , of the drop coefficient, β_1 , and the drop coefficient, β_1 .

5081-10-20-11114

COINTEGRATION

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

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KALACHEV, G.S., doktor tekhn.nauk; KOTIK, M.G., inzh.

Spin. Vest. Vozd. Fl. no.10:72-74 0 '61. (MIRA 15:2)
(Stability of airplanes)

KALACHEV, G.S., doktor tekhn.nauk; KOTIK, M.G., inzh.

Steadiness and roll of a plane. Vest. Vozd. Fl. no.5:56-64
My '61. (MIRA 14:8)

(Rolling (Aerodynamics))
(Stability of airplanes, Longitudinal)

KALACHEV, G.S.; doktor tekhn.nauk; KOTIK, M.G., inzhener

Roll-off of modern airplanes. Vest.Vozd.Fl. no.1:54-59 Ja '61.
(MIRA 13:12)

(Airplanes--Aerodynamics)

KOTIK, M.G., inzh.; SHCHERBAKOV, A.A., podpolkovnik, letchik-ispytatel'
pervogo klassa

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Vest.Vozd.Fl. no.8:66-74 Ag '60. (MIRA 13:9)
(Aerodynamics, Supersonic)

SECHERBAKOV, A.A., podpolkovnik, letchik-ispytatel' pervogo klassea;
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Vond.Fl. no.1:51-56 Ja '60. (MIRA 13:8)
(Aerodynamics, Supersonic)

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(Hydrodynamics--Dictionaries)

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supply of feeding stuff by the cultivation of topinambou. 1st ed.]
DA J Not in DLC

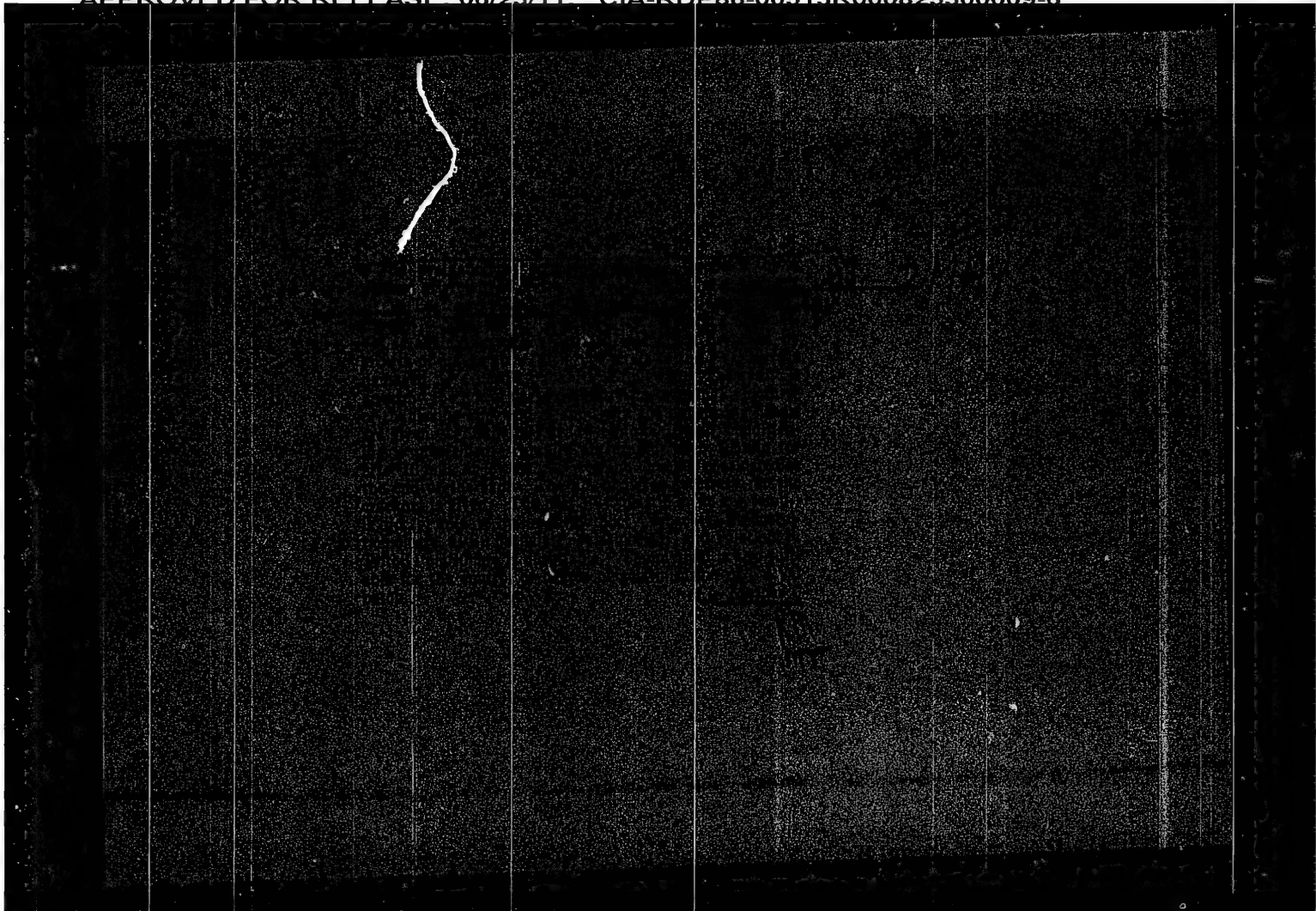
SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

KOTIK, L.

"Experience in cultivating Jerusalem artichokes." p. 413. (ZA SOCIALISTICKE ZEMEDELSTVI
Vol. 3, no. 4, Apr. 1953, Praha, Czechoslovakia)

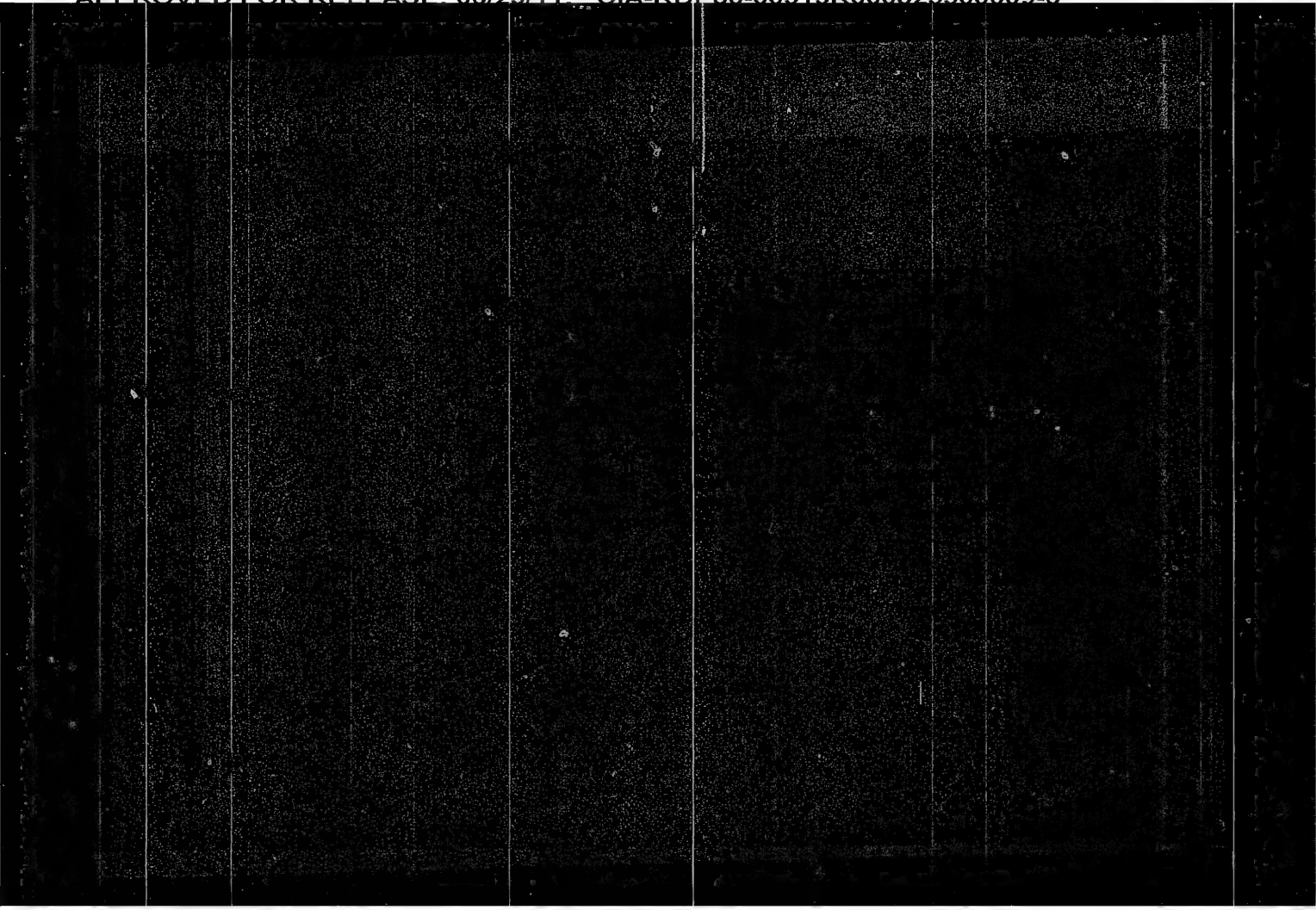
SO: Monthly List of East European Accessions, Vol. 2, #10 Library of Congress
October 1953, Uncl.

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KOTIK, JAN. Tradice a kultura ceskoslovenske vyroby. (Vyd. 1.) Praha, Orbis, 1954. 179 p. (Tradition and culture of Czechoslovak production. 1st ed. illus., 5 col. plates, notes)

TECHNOLOGY
Czechoslovakia

So: East European Accessions, Vol. 5, no. 5, May 1956

ACC NR: AP6018995

propagate. It is found that, with 3 or more modes, the optimal field distribution at the radiating aperture is sufficiently well approximated. The loss due to reflections from the waveguide open end can be most efficiently reduced with the $TE_{0,2n-1}$ -mode. The method of optimal radiation-pattern shaping described in the article is equally applicable to quasi-optical beam transmission lines. Orig. art. has: 2 figures, 8 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 10Feb65 / ORIG REF: 002 / OTH REF: 003

Card 2/2

ACC NR: AP6018995

SOURCE CODE: UR/0109/66/011/006/1046/1050

AUTHOR: Persikov, M. V.; Kotik, I. P.; Sivov, A. N.

ORG: none

TITLE: Optimizing the pattern of radiation from the open end of a waveguide

SOURCE: Radiotekhnika i elektronika, v. 11, no. 6, 1966, 1046-1050

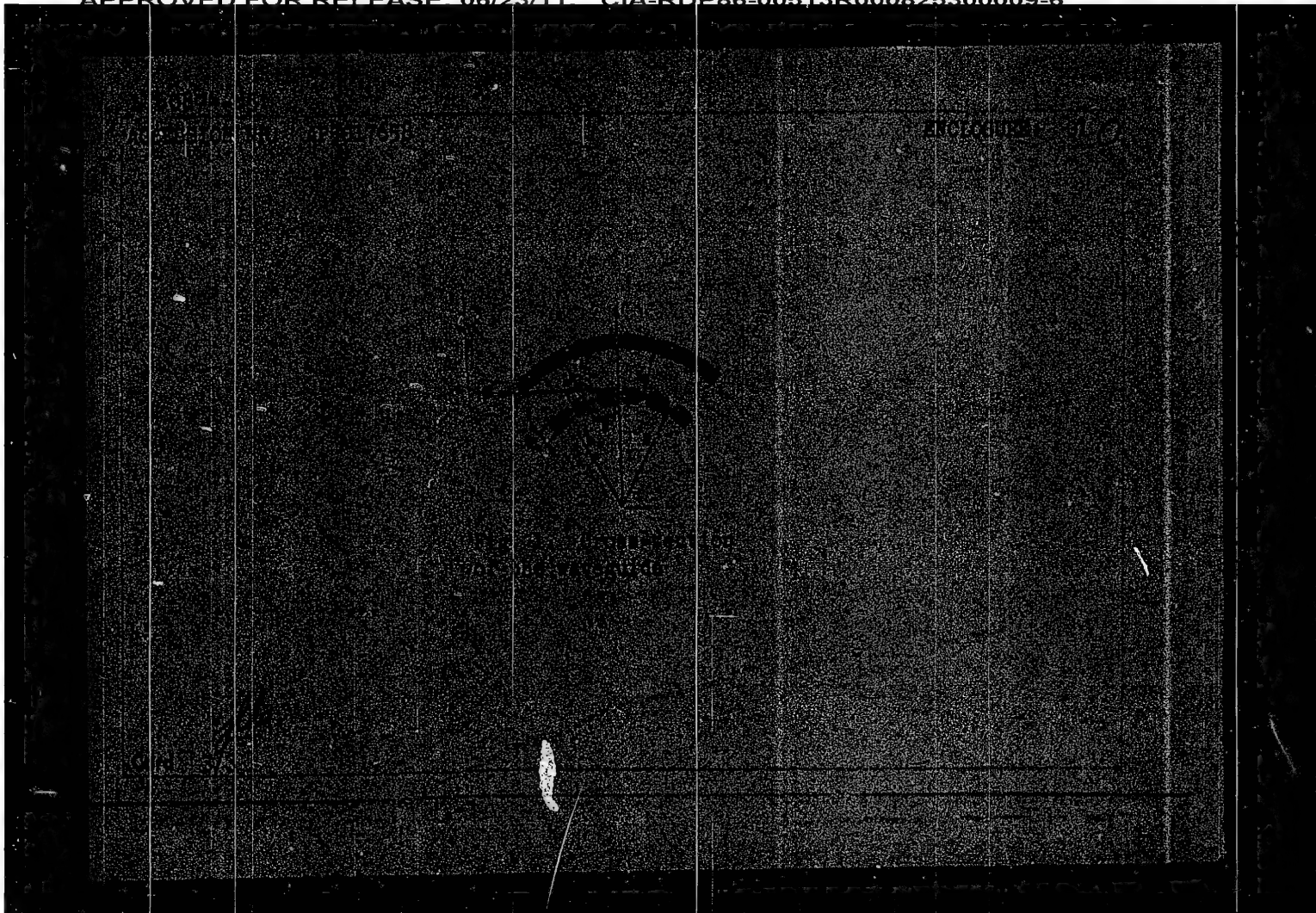
TOPIC TAGS: waveguide antenna, antenna radiation pattern

ABSTRACT: This problem is considered: What relations among amplitudes and phases of modes emerging from a waveguide open end are required in order to ensure that the ratio of energy radiated within an angle 2θ to the energy delivered by all arriving modes be maximum? To simplify mathematical operations, a simplest model of a planar waveguide is considered in which the modes ($TE_{0,2n-1}$ and $E_{0,2n-1}$) with cophasal current-density distribution at the opposite plates

Cord 1/2

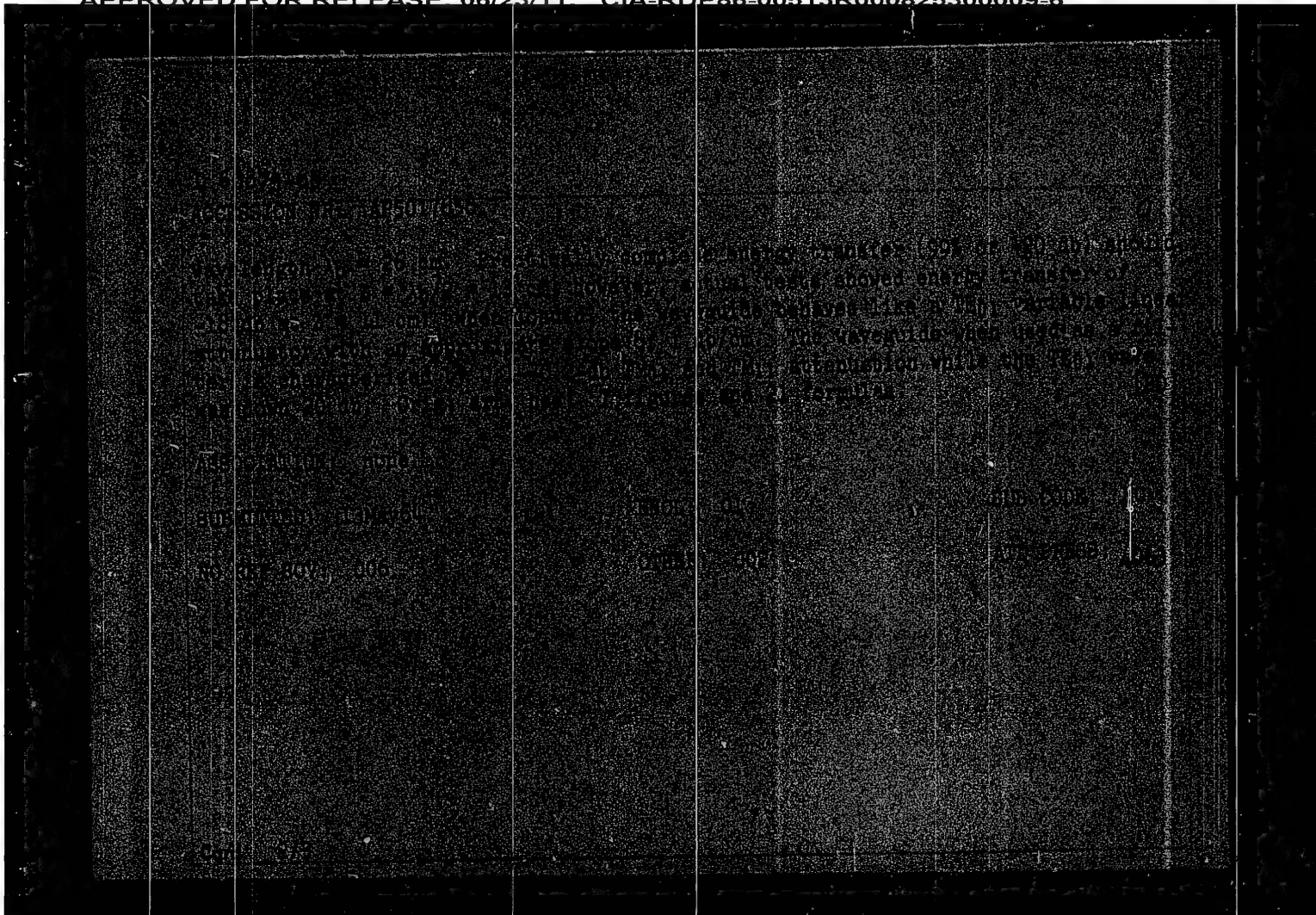
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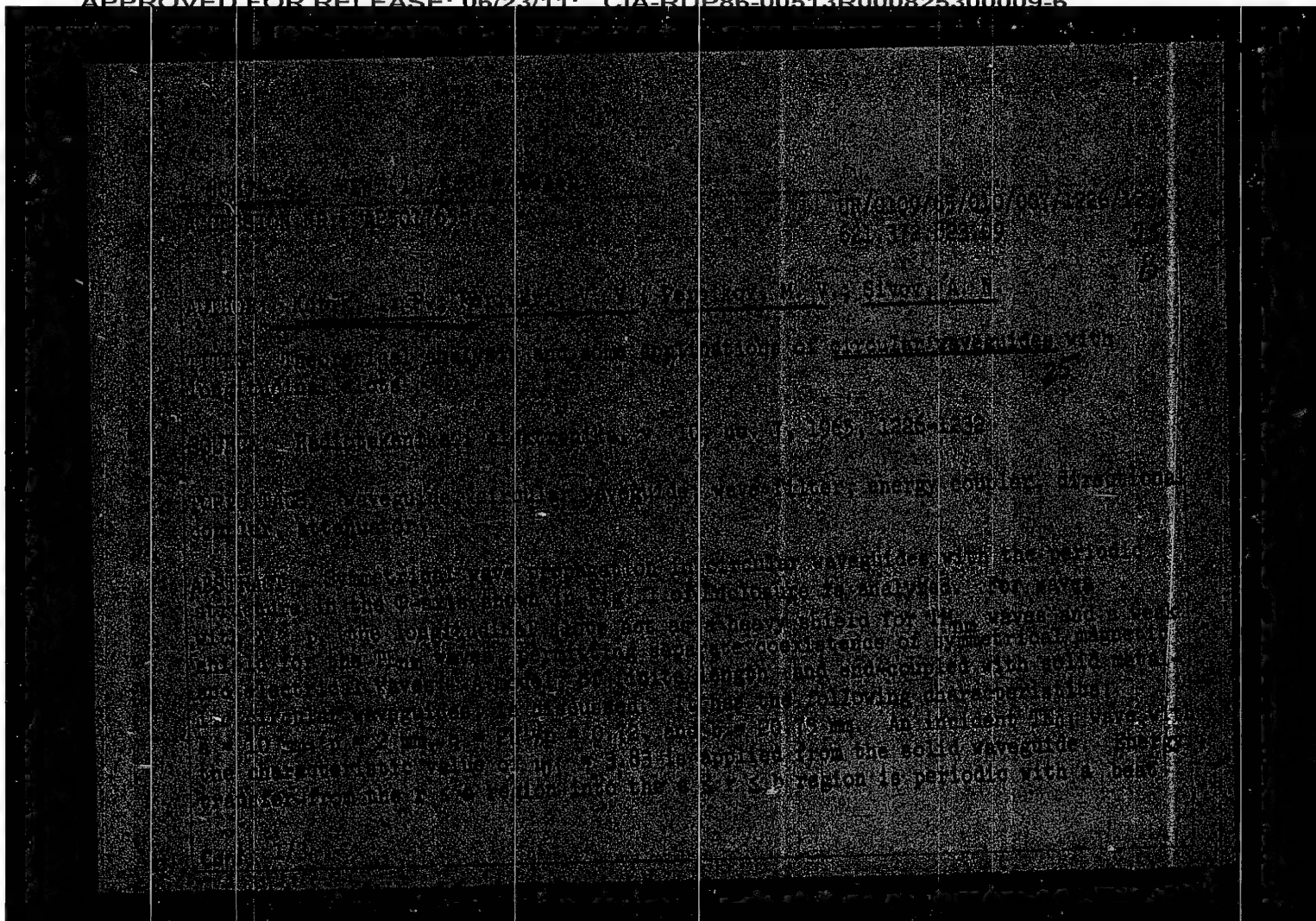
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KOTIK, I.P.; SIVOV, A.N.

Calculation of the phase characteristics of nonsymmetrical wave
types and the filtering action of a helical waveguide. Radiotekh.
i elektron. 10 no.6:1065-1072 Je '65. (MIRA 18:6)

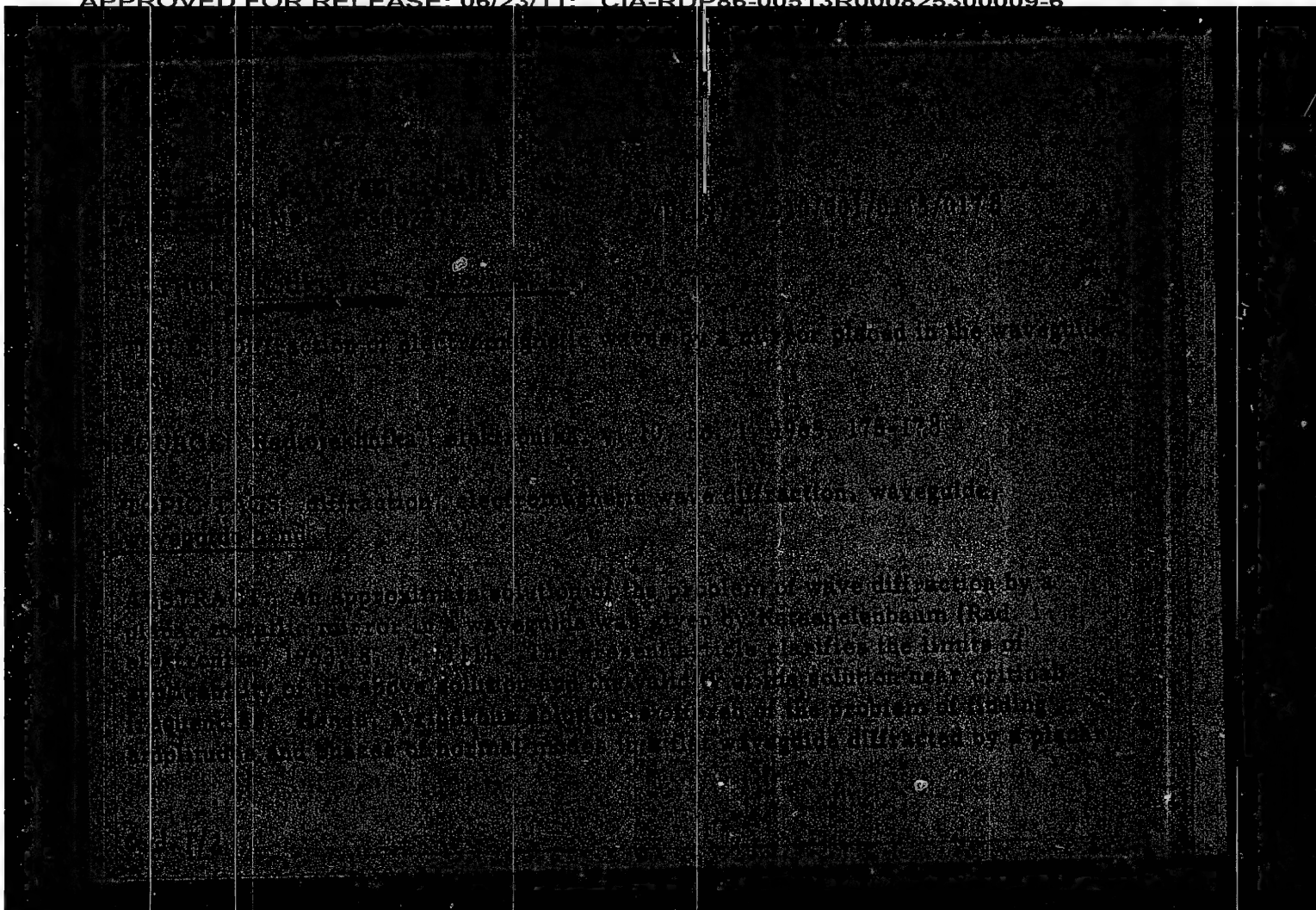
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UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK	Case No. 15-cv-00113	Page 1 of 1
IN RE: [REDACTED] (Simplified Case)		

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VOLKONSKAYA, T.G.; ZHEMCHUZHNIKOVA, D.M.; ZHOGOLEV, Ye.A.; KOTIK, I.P.

Programs for calculating Bessel's functions. Vych. met. i prog.
1:316-323 '62. (MIRA 15:8)
(Bessel's functions)

ACCESSION NR: AR4039844

these, a system of wave equations is set up. The solutions of this system must satisfy certain conditions on the boundaries of the irregular region and at the possible points of discontinuity of the derivative of the function which describes the shape of the wave-carrier. A standard program for this system is constructed. Methodical computations are performed, establishing the stability of the results according to the number of equations chosen and to the given allowable error at each step of the integration by the Runge-Kutta formulas. In a series of examples, in which the boundary of the wave-carrier was described by polynomials of various degrees, a reflection coefficient was defined. B. Katsenelenbaum

DATE ACQ: 15May64

SUB CODE: MA

ENCL: 00

Card 2/2

ACCESSION NR: AR4039844

S/0044/64/000/004/B098/B098

SOURCE: Ref. zh. Matematika, Abs. 4B425

AUTHOR: Sveshnikov, A. G.; Kotik, I. P.; Cherny'shev, Yu. S.

TITLE: On a computation method for matching plane wave-carriers.

CITED SOURCE: Sb. rabot Vy*chisl. tsentra Mosk. un-ta, v. 1, 1962, 234-245

TOPIC TAGS: plane wave carrier, matching, computation method, variable cross section, Fourier series, wave equation

TRANSLATION: The method of analysis, developed earlier in the works of A. G. Sveshnikov, for the passage of waves through wave-carriers of variable cross-section, is applied to plane wave-carriers. In this case the method amounts to replacing the transverse coordinate by a new variable, such that one boundary of the carrier becomes the corresponding coordinate line. The wave equations in the new variables involve coefficients which depend only on the shape of the given wave-carrier. The solution is sought in the form of a Fourier series in the new variable; the coefficients of this series depend on the longitudinal coordinate. For

Cord 1/2

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S/109/61/006/012/007/020
D266/D305Propagation of H_{0n} type waves ...

where h_0 - propagation coefficient of the smooth waveguide (H_{0n} mode), μ - root of the J_1 function, l_2 and l_3 depend on the shape and dimensions of the conductors (obtained in Ref. 3: Op.cit.), $k = 2\pi/\lambda$. If $d \rightarrow \infty$ the formulae agree with those of B.Z. Katsenelenbaum (Ref. 5: Radiotekhnika i elektronika, 1959, no. 3, v. 4, 428). If

$$d = \frac{\lambda}{2} m \frac{1}{\sqrt{\epsilon^1 - 1}} \quad (m = 1, 2, \dots)$$

there is a sudden increase in attenuation due to resonance. There are 4 figures and 5 Soviet-bloc references.

SUBMITTED: April 17, 1961

Card 4/4

30432

S/109/61/006/012/007/020
D266/D305Propagation of H_{0n} type waves ...

dent upon the boundary of two dielectrics, p - distance between the conductors, E_1^1 , E_2^2 - auxiliary fields corresponding to the reflected and refracted waves respectively, H_s - magnetic field on the surface of the conductor, C - contour of the conductor. With the aid of (7) equivalent boundary conditions are derived which are represented by an electric current in the direction of the conductors and by magnetic current perpendicularly to the conductors. These boundary conditions are applied to the corresponding boundary of the ring waveguide. In the region $0 < r < a$ the dielectric constant is taken as unity whilst the dielectric surrounding the rings is assumed lossy ($\epsilon = \epsilon' - j\epsilon''$). The propagation and attenuation coefficients of this composite waveguide are expressed in the following form:

$$h_z = h_0 + \frac{p}{a} \frac{I_s}{p} \frac{\mu^2}{h_0 a^2}; \quad J_1(\mu) = 0; \quad h_0 = \sqrt{k^2 - \left(\frac{\mu}{a}\right)^2}. \quad (18)$$

$$h'' = \frac{(I_s - I_2)^2}{4} \frac{\mu^2}{h_0 a^2} \operatorname{Im} \left[\frac{\beta_0 a}{\operatorname{tg} \beta_0 d + \beta_0 I_2} \right], \quad (19)$$

$$\beta_0 = \sqrt{k^2 \epsilon - h_0^2}.$$

Card 3/04

30432

S/109/61/006/012/007/020
D266/D305Propagation of H_{0n} type waves ...

tion given by A.N. Sivov (Ref. 3: Radiotekhnika i elektronika, 1961 v. 6, no. 4, 483)); (2) The fields further away from the conductor are related to those near to the conductor by using the Lorentz lemma (explained by L.A. Vaynshteyn (Ref. 2: Elektromagnitnye volny (Electromagnetic Waves) Izv. Sovetskoye radio, 1957, 418)). The auxiliary fields - required by the lemma - are taken as the fields in the absence of the conductors. Performing the calculations the reflection and transmission coefficients are obtained in the following form

$$2\sqrt{\epsilon_1}\beta_{1p}(R_1 - R) = \oint_C E_1^2 H_s ds, \quad (7)$$

$$2\sqrt{\epsilon_2}\beta_{2p}(T_1 - T) = \oint_C E_2^2 H_s ds.$$

where ϵ_2, ϵ_1 - dielectric constants in the upper and lower half-spaces, φ_1, φ_2 - angles of incidence and refraction respectively, R_1, T_1 - reflection and transmission coefficients of plane waves inci-

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30432

S/109/61/006/012/007/020
D266/D305

9.1300

AUTHORS: Kotik, I.P., and Sivov, A.N.

TITLE: Propagation of H_{0n} type waves in a ring waveguide
having a dielectric-metal jacket

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 12, 1961,
2005 - 2011

TEXT: The purpose of the paper is to solve two closely related problems: (1) to calculate the reflection and transmission coefficients of plane electromagnetic waves incident upon a set of parallel conductors (E parallel to the conductors, distance between the conductors is small in comparison with the wavelength, the upper half-spaces are filled with different dielectrics), (2) to calculate the propagation and attenuation coefficients of a ring waveguide half embedded into dielectric and the whole structure surrounded by a metal wall (Fig. 5). The solution of the planar problem is again divided into two parts: (1) The fields near to the conductors are obtained with the aid of the Laplace equation (solution)
Card 1/5

29589

The effect of complex shape ...

S/108/61/016/011/005/007
D201/D304

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i
elektrosvyazi im. A.S. Popova (Scientific and Techni-
cal Society of Radio Engineering and Electrical Com-
munications im. A.S. Popov) [Abstractor's note: Name
of Association taken from 1st page of journal]

SUBMITTED: January 5, 1961

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D201/D304

The effect of complex shape ...

the $(n + 1)$ -th pulse. The evaluations were made on a fast electronic computer, Eq. (3) being integrated by the Runge-Kutta method. The results obtained are given in Table 1 and show that the phase φ_n depends little on μ and γ , γ determining only the number of pulses required for attaining phase φ_n (γ characterizes the external force acting on the oscillator). The obtained values φ_n were compared with the phase ψ of the fundamental of the sequence of pulses $A(\tau)$ and the results are given in Table 2. Finally, if the force acting on the oscillator has the form of bursts of oscillations, whose amplitude and detuning are small and slowly varying, the steady state phase of the oscillator may be determined by the method of P.N. Zanadvorov (Ref. 1: Radiotekhnika, v. 3, no. 2, 1958). There are 2 tables, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: P.W. Fraser, PIRE, v. 45, no. 9, 1957. X

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S/108/61/016/011/005/007
D201/D304

The effect of complex shape ...

dition $(0.8 + 0.02 \tau_k) \tau_k = 2k\pi$, so that when $A(\tau_k) = 0$, $\tau = \tau_k$, $k = 1, 2, 3, 4, 5$ so that $\tau_1 = 6.724$, $\tau_2 = 12.067$, $\tau_3 = 16.640$, $\tau_4 = 20.002$, $\tau_5 = 24.394$. The analysis has shown that to a great degree of accuracy the amplitude and phase of the oscillator may be said to be established towards the end of the pulse disturbance; between the pulses the oscillations may be assumed to be harmonic and

$$\left. \begin{aligned} x &= x_m \cos (\tau - \varphi_n) \\ \frac{dx}{d\tau} &= -x_m \sin (\tau - \varphi_n) \\ x_m &= \sqrt{x^2 + \left(\frac{dx}{d\tau}\right)^2} \\ \varphi_n &= \tau + \arctg \frac{dx/d\tau}{x} \end{aligned} \right\} \quad (5)$$

hold, where φ_n - the initial oscillator phase until the arrival of
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D201/D304

The effect of complex shape ...

sionless time; $\bar{S}_0$ - average reduced slope of the valve. μ , γ , S_0 and β - constants, then the fundamental equation may be represented as

$$\frac{d^2x}{d\tau^2} + x = -\mu \left\{ \delta - M\omega_0 S_0 \left[1 - \frac{2}{\pi} \arctg \beta x_m \right] \right\} \frac{dx}{d\tau} + \gamma A(\tau). \quad (3)$$

Practical values are now assigned to the parameters of (3) thus:

$\delta = 0.8$; $M\omega_0 S_0 = 1.12$; $\beta = 0.422$; $\mu = 10^{-2}$ and 10^{-3} , $\gamma = 0.1$ and

0.01 are the values resulting from practical assessment of the valve parameters and regime. The acting force has been taken as having the form of consecutive "distorted sinusoidal pulses" $A(\tau)$ with linear variation of amplitude and initial phase. Thus $A(\tau)$ had the form of

$$A(\tau) = \begin{cases} 0.08(\tau + 3) \cdot \sin[\tau(0.8 + 0.02\tau)], & 0 < \tau < \tau_k, \\ 0, & \begin{cases} \tau < 0, \\ \tau > \tau_k, \end{cases} \end{cases} \quad (4)$$

where τ_k is determined and again from an arbitrary and logical condition 2/7

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D201/D304

9.3260 (1139,1159)

AUTHORS: Gyunninen, E.M., Zanadvorov, P.N., Kotik, I.P., and
Makarov, G.I.

TITLE: The effect of a complex shape periodic signal on a
free-running oscillator

PERIODICAL: Radiotekhnika, v. 16, no. 11, 1961, 39 - 44

TEXT: The pure theory of phasing of oscillators presents difficulties which make the solutions of its problem practically impossible. In the present article, the author considers the solution of this problem in its numerical context, by means of a fast electronic computer. Such a problem, as opposed to the purely analytical one, is stated to be comparatively easy, but the quasilinear method of analysis is applied for simplification and numerical substitution of the equation of the oscillator, upon which acts the external force $A(\tau)$. If x is the voltage at the grid, reduced to the amplitude x_m of the steady state oscillations at the grid, ω_0 and δ - the frequency and attenuation of the oscillating circuit, $\tau = \omega_0 t$ - dimen-

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Certain Problems (Cont.)

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Gaitskhoki, S. I. [Engineer]. The Mechanization of Manual Operations in Hydraulic-Turbine Production	129
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Certain Problems (Cont.)

SOV/5460

57

COVERAGE: The experience of the LMZ (Leningradskiy metallicheskiy zavod - Leningrad Metalworking Plant) in the manufacture of modern large-capacity turbines is presented. Methods for the rationalization of basic manufacturing processes and for the mechanization and automation of manual operations are given. Descriptions of attachments and tools designed by LMZ for improving labor productivity and product quality are provided, and advanced inspection methods discussed. References accompany some articles. No personalities are mentioned. There are 26 references: 25 Soviet and 1 English.

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I. NEW PROCESSING METHODS IN MACHINING
AND ASSEMBLY

Ganze, Z. M. [Engineer]. The Organization, Methods, and Trends in Efforts for Improving the Easy Manufacturability of Designs for Large Hydraulic Turbines
Card 2/12

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KOTIK, I. M.

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PHASE I BOOK EXPLOITATION SOV/5460

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Nekotoryye voprosy tekhnologii proizvodstva turbin (Certain Problems in the Manufacture of Turbines) Moscow, Mashgiz, 1960. 398 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 2,100 copies printed.

Sponsoring Agency: RSFSR. Sovet narodnogo khozyaystva Leningradskogo ekonomicheskogo administrativnogo rayona, Upravleniye tyazhelogo mashinostroyeniya, and Leningradskiy dvazhdy ordena Lenina metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Ed. (Title page): G. A. Drobilko; Editorial Board: Resp. Ed.: G. A. Drobilko, B. A. Glebov, A. M. Mayzel, and M. Kh. Mernik; Tech. Ed.: A. I. Kontorovich; Managing Ed. for Literature on Machine-Building Technology: Ye. P. Naumov, Engineer, Leningrad Department, Mashgiz.

PURPOSE: This collection of articles is intended for technical personnel in turbine plants, institutes, planning organizations, as well as for production innovators.

Card-1/12

KOTIK, I. I., SEREBRENNIKOVA, I. Ya., and FAYNBERG, L. I.

"Radioactive Densimeter for Liquids and Pulps"

paper presented at the All-Union Seminar on the Application of
Radioactive Isotopes in Measurements and Instrument Building,
Frunze (Kirgiz SSR), June 1961)

So: Atomnaya Energiya, Vol 11, No 5, Nov 61, pp 468-470

KOTIK, I.I.

Results of work following the reorganization of a district public health system. Zdrav.Bel. 7 no.11:36-38 N '61. (MIRA 15:11)

1. Zamestitel' glavnogo vracha Dzerzhinskogo rayona.
(DZERZHINSK DISTRICT(MINSK PROVINCE)—PUBLIC HEALTH ADMINISTRATION)

KOTIK, I., inzh.; MIROSHNICHENKO, B., inzh.

Expansion of inland water transportation in the Ukrainian S.S.R.
Rech.transp. 19 no.8:11-12 Ag '60. (MIRA 14:3)
(Ukraine--Inland water transportation)

KOTIK, I.I., inzhener.

Further development of shipping on small rivers of the Ukraine.
Rech.transp. 15 no.12:6-9 D '56. (MLRA 10:2)
(Ukraine--Rivers) (Inland water transportation)

KOTIK, I.; ROGOV, V.; GROMOV, P.; FEYGIN, L.; SHCHERBAKOV, V.; ROGOVER, M.;
BUTKEVICH, P.

Innovators of the Leningrad Metalworks to the 22d Congress of the
CPSU. Mashinostroitel' no.9:30-32 S '61. (MIRA 14:10)
(Leningrad--Machinery industry--Technological innovations)

KOTIK, I.

Expanding transportation on small Ukrainian rivers. Rech. transp.
20 no.8:13-14 Apr '61. (MIRA 14:10)

1. Nachal'nik otdela ekspluatatsii flota malykh rek Dneprovskogo
parokhodstva.
(Ukraine--Inland water transportation)

KOTIK, I., 1nzh.

On small rivers of the Ukraine. Rech. transp. 22 no.9:14-15
S '63. (MIRA 16:10)

KOTIK, F.I.

1989. Experience in Utilization of Fast Drying Mixtures.
Prilozheniya k spetsial'noi literaturnoi kolektsii (Puz-
man) F. I. Kotik. Leningradskaya, 1989, no. 10, Oct.
p. 8-9.
Fast-drying mold materials, their chemical-mineralogical com-
position, and physical data. Tables, graphs, 4 re.

KOTIK, F. I.

Apparatus for Measuring the Dry Strength of Moulding and
Core Sands. F. I. Kotik. *Известия Академии Наук СССР* 1954. (5).
10-16. -- [In Russian]. A hand-operated apparatus (making
use of a dynamometer) for measuring the dry strength of
moulding materials up to 25 kg./cm.², is described. -- V. K.

GOL'TSOV, V.A.; GEL'D, P.V.; KOTIK, E.M.

Effect of the phase hardening of austenite on its permittivity
to hydrogen. Fiz. met. i metalloved. 13 no.6:860-868 Je '62.
(MIRA 15:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.
(Nickel steel--Hydrogen content)
(Iron-nickel alloys--Hardening)

Influence of

S/126/62/013/006/005/018
E111/E352

migration stage and causes the activation energy to increase. The degree of phase work-hardening of austenite and the activation energy for hydrogen penetration are clearly related, apparently because fracture of mosaic blocks and growth of internal stresses complicates the hydrogen diffusion stage in austenite. It is thus possible that the development of intragranular boundaries leads to an increase in defect concentrations which act as hydrogen "traps" with a higher energy barrier as regards movement along them. The first $\gamma \rightarrow \alpha \rightarrow \gamma$ transformation cycle has an especially great effect on permeability to hydrogen; later, the effect is usually negligible. Activation energy changes appreciably if not less than 50% $\gamma \rightarrow \alpha$ transformation is achieved in the direct martensite transformation; at 75% the effects are especially great. There are 4 figures and 1 table. ✓

ASSOCIATION: Ural'skiy politekhnicheskiy institut im.
S.M. Kirova (Ural Polytechnical Institute im.
S.M. Kirov)

SUBMITTED: November 16, 1961

Card 2/2

S/126/62/013/006/005/018
E111/E352

AUTHORS: Gol'tsov, V.A., Gel'd, P.V. and Kotik, E.M.

TITLE: Influence of phase work-hardening of austenite on its permeability to hydrogen

PERIODICAL: Fizika metallov i metallovedeniye, v. 13, no.6, 1962, 860 - 868

TEXT: Cyclic $\gamma \rightarrow \alpha \rightarrow \gamma$ heat-treatment stabilizes and hardens austenite and has an anomalous effect on the coefficient of self-diffusion of iron. The present investigation was undertaken because it was not clear how such treatment affected the permeability of steels to hydrogen. Permeability was studied on Fe-Ni (12.6 and 25% Ni) alloys at 280 - 1020 °C. It was found that the permeability of α -phase with a martensitic structure changes exponentially with temperature up to the A_s point, the activation energy being 17-19 kcal/mole. Equilibrium austenite has activation energies for the hydrogen-penetration process of 28-31 kcal/mole; the value depends little on composition. The reverse martensite process, leading to the formation of hardened austenite, greatly complicates the hydrogen-
Card 1/2

Kotik, B. A.

IZRAILOVICH, N.Ye., inzhener, nauchnyy redaktor: ~~KOTIK, B. A.~~ redaktor
izdatel'stva; GUSEVA, S.S., tekhnicheskiiy redaktor

[Annotated list of research works on building and architecture;
work carried out during 1956] Sbornik annotatsii nauchno-issledo-
vatel'skikh rabot po stroitel'stvu i arkhitekture; raboty, vypolnen-
nye v 1956 g. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit.,
1957. 466 p. (MLRA 10:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Tsentral'nyy
institut nauchnoy informatsii po stroitel'stvu i arkhitekture
(Bibliography--Building) (Bibliography--Architecture)

KOTIK, B. A.

KARPUKHIN, Nikita Sergeyevich, dotsent, kandidat tekhnicheskikh nauk;
ZHDANOV, A.P., dotsent, kandidat tekhnicheskikh nauk, retsenzent;
MURASHEV, V.I., professor, redaktor; TREPKHENKOV, R.I., dotsent,
kandidat tekhnicheskikh nauk, nauchnyy redaktor; KOTIK, B.A.,
redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiiy redaktor

[Reinforced concrete structures] Zhelezobetonnye konstruktzii. Izd.
2-oe, perer. Pod red. V.I. Murasheva. Moskva, Gos. izd-vo lit-ry
po stroit. i arkhitekt., 1957. 442 p. (MIRA 10:10)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury
(for Murashev)
(Reinforced concrete construction)

KOTIK, B. A.

OSIPOV, Lev Georgiyevich, kandidat tekhnicheskikh nauk; SERBINOVICH, Pavel Petrovich, inzhener; KRASENSKIY, Viktor Yevgen'yevich, inzhener; PREDTECHENSKIY, V.M., kandidat tekhnicheskikh nauk, retsenzent; TREPENENKOV, R.I., kandidat tekhnicheskikh nauk, nauchnyy redaktor; KOTIK, B.A., redaktor izdatel'stva; PERSON, M.N., tekhnicheskiy redaktor

[Public and industrial buildings] Grazhdanskie i promyshlennye zdania. Moskva, Gos.izd-vo lit-ry po stroit. i arkhitekt., Pt.1. [Architectural and structural designs and building elements] Arkhitekturno-konstruktivnye skhemy i elementy zdaniy. Pod obshchei red. L.G.Osipova. 1957. 375 p. (MLRA 10:9)

(Building)

KOTIK, B.A.

ZHUDIN, Nikolay Dmitriyevich; VAKHURKIN, V.M., inzhener, retsenzent;
ZELYATROV, V.M., inzhener, nauchnyy redaktor; KOTIK, B.A., redaktor
izdatel'stva; PERSON, M.N., tekhnicheskiy redaktor.

[Steel structures] Stal'nye konstruktsii. Moskva, Gos.izd-vo lit-ry
po stroit.i arkhitekt., 1957. 334 p. (MIRA 10:11)
(Building, Iron and steel)

KOTIK, B. A.

ZHEMOCHEN, Boris Nikolayevich, doktor tekhnicheskikh nauk, professor;
~~KOTIK, B. A.~~ redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiy
redaktor

[Theory of elasticity] Teoriia uprugosti. Izd. 2-oe, perer.
Moskva, Gos.izd-vo lit-ry po stroit. i arkhitekt., 1957. 255 p.
(Elasticity) (MLR 10:10)

KOTIK, B. A.

KURBATOV, Dmitriy Ivanovich; OSMOLOVSKIY, M.S., redaktor; KOTIK, B.A.,
redaktor izdatel'stva; BOROVNEV, N.K., tekhnicheskiy redaktor

[Fireproof structures in rural building] Ognestoikie konstruktsii
v sel'skom stroitel'stve. Pod red. M.S.Osmolovskogo. Moskva, Gos.
izd-vo lit-ry po stroit. i arkhitekt., 1957. 84 p. (MLRA 10:8)
(Building, Fireproof)